

and may be characterized as new to science with the following diagnosis:—

ANSER NEGLECTUS, mihi. (Plate II.)

Ab *A. brachyrhyncho* statura majore, rostro longiore et graciliore, secundariorum tectricibus atro-fuscis, tectricibus carpi discoloribus: ab *A. segetum* pedibus zonaque rostri incarnatis distinguendus.

*Hab.* Ufa, Rossia orientalis.

The specimens of this Goose were all obtained in the government of Ufa, on Lake Thoungak. On migration this species visits the above-named district in very large flocks, and by means of binoculars it was easy to determine that *A. segetum* was very rare among the flocks of *A. neglectus*. The Tatars and Bashkirs are quite familiar with the form now described, but the true *A. segetum* with orange feet and bill is unknown to most of them. Unfortunately I cannot communicate any information on the breeding-localities of this new species. I am told by Mr. Nazarow that a Goose with pink feet and a pink band on the bill breeds in the northern parts of the district of Turgaisk, but I am not sure that this information has any relation to *A. neglectus*.

III.—*Field-Notes on the Birds of Chili.* By AMBROSE A. LANE.  
*With an Introduction and Remarks by P. L. SCLATER.*

I. *Introductory Remarks.*

IN the notice of the late Mr. H. B. James, contained in 'The Ibis' for 1893 (p. 164), it was mentioned that in 1889 James, who, along with me, had planned a work on Chilian birds to correspond with 'Argentine Ornithology,' sent out a collector to Chili in order to increase his series of the birds and eggs of that country. Acting under James's instructions, Mr. Ambrose A. Lane went first to Tarapacá, the new northern province of the Chilian Republic, and subsequently south to Arauco and Valdivia, but was unfortunately driven home by the outbreak of the revolution

before he had finished his work. The collections of birds made by Mr. Lane were transferred, after James's death, along with his other collections, to the British Museum. Mr. Lane's manuscripts and journals were entrusted by James to my care, but the heavy pressure of other work has, I regret to say, prevented my attention to them up to the present time. On looking through them I now find that a certain number of the field-notes on the birds that were observed and collected are of sufficient interest to warrant their publication, regard being had to the fact of the little information there is at present available on the life-history of the birds of Chili.

I will first give a short account of Mr. Lane's principal expeditions in Chili, in order to show exactly where he went.

## II. *Excursions near Santiago.*

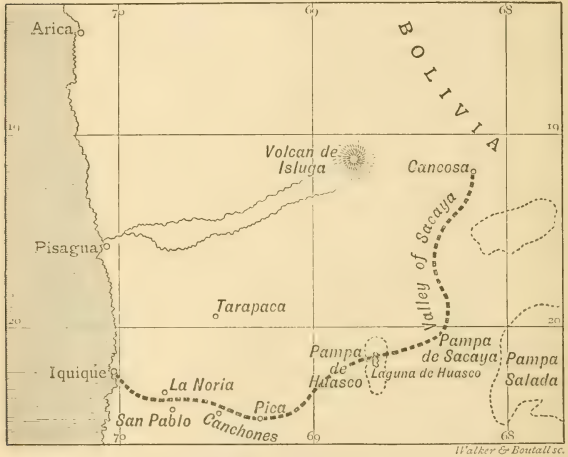
Mr. Lane arrived at Valparaiso on November 11th, 1889, and after a short stay at Santiago, and an excursion to the Hacienda Mansel, about three miles from the railway station of Hospital, during which a few birds were collected, returned to Santiago on December 1st. Another short excursion was then made to a country-house about eight hours' ride from Melipilla, in the province of Santiago, and about two hours from San Antonio, which is on the coast south of Valparaiso. The country here was mostly a wheat-growing district, and the birds were mostly similar to those of Hospital. On December 8th Mr. Lane returned to Hospital and stayed there collecting until the 19th, during which time he obtained nests and eggs of various small birds. The commonest birds noticed in these two places were *Mimus thenca*, *Diuca grisea*, *Hylactes megapodius*, and *Speotyto cunicularia*, all abundant in this district. On December 19th Mr. Lane returned to Santiago and thence to Valparaiso.

## III. *Expedition to Tarapacá.*

Mr. Lane left Valparaiso on December 26th, 1889, and arrived at Iquique on the 31st. The country here consists,

as he states, of a series of hilly slopes, covered with loose soft sand and utterly devoid of vegetation. It contains little signs of animal life, with the exception of a few sea-birds and some Turkey-Vultures, which frequent the beach. Two

Fig. 1.



ROUTE OF MR. LANE IN TARAPACÁ.

days later Mr. Lane left Iquique for the Oficina of San Pablo, some thirty miles in the interior. The country on this journey was of the same character as that of the coast—completely sterile and destitute of animal and vegetable life. Almost the only birds met with were *Muscisaxicola rufivertex* and *Thinocorus orbignesi*. On January 15th Mr. Lane started for Pica, about 45 miles further off, and arrived there about noon next day, passing Canchones about half-way. Here some groves of trees are met with, but the rest of the way was entirely desert. At Pica Mr. Lane found a stretch of verdure about a mile and a half long, well planted with fruit-trees and evergreens. Here the Song-Sparrow (*Zono-*

*trichia pileata*), Doves (*Melopelia meloda*), and other small birds were met with in the gardens.

On January 17th Mr. Lane left Pica and rode 15 hours to the Pampa de Huasco, which is situated at a height of about 12,000 feet in the Andes. The laguna of Huasco was frequented by Flamingoes (*Phænicopterus andinus*), Gulls (*Larus serranus*), and other water-birds.

On January 21st Mr. Lane proceeded onwards to Sacaya. The valley of Sacaya is about 28 miles long, and where it widens the river forms stretches of swamps, sometimes a mile in width. Here Ducks and other water-birds were numerous. On January 27th Mr. Lane went on to Cancosa, about a day's ride northward, near the same river, but finding the locality unsuitable for his work, returned to Sacaya on January 30th. On the way back he made a deviation to an Indian homestead, where he purchased some young Rheas (*Rhea darwini*) (see P. Z. S. 1891, p. 137). After staying a few days at Sacaya, he returned to San Pablo on February 10th, and packed up his collections for transmission home.

At the end of February, 1890, having replenished his stores, Mr. Lane left San Pablo again and reached Sacaya on March 6th, where he obtained the use of an Indian house for headquarters. From Sacaya he made expeditions to Cancosa and to various other localities in the neighbourhood, and stayed on till the beginning of May, when he returned to San Pablo on the 9th of that month. Hence, after making a second short expedition to Pica, he returned to Valparaiso at the beginning of June.

The birds obtained by Mr. Lane on this expedition were placed in my hands by James, and were described in a paper read before the Zoological Society on February 3rd, 1891\*. The specimens were referred to 53 species, among which one—*Phrygilus coracinus*—was described as new.

\* "On a second Collection of Birds from the Province of Tarapacá, Northern Chili." By P. L. Selater. P. Z. S. 1891, p. 131.

IV. *Expedition to Arauco and Valdivia.*

On June 27th, 1890, Mr. Lane arrived at Coronel, a port on the Chilian coast a little south of Concepcion. Here he

Fig. 2.

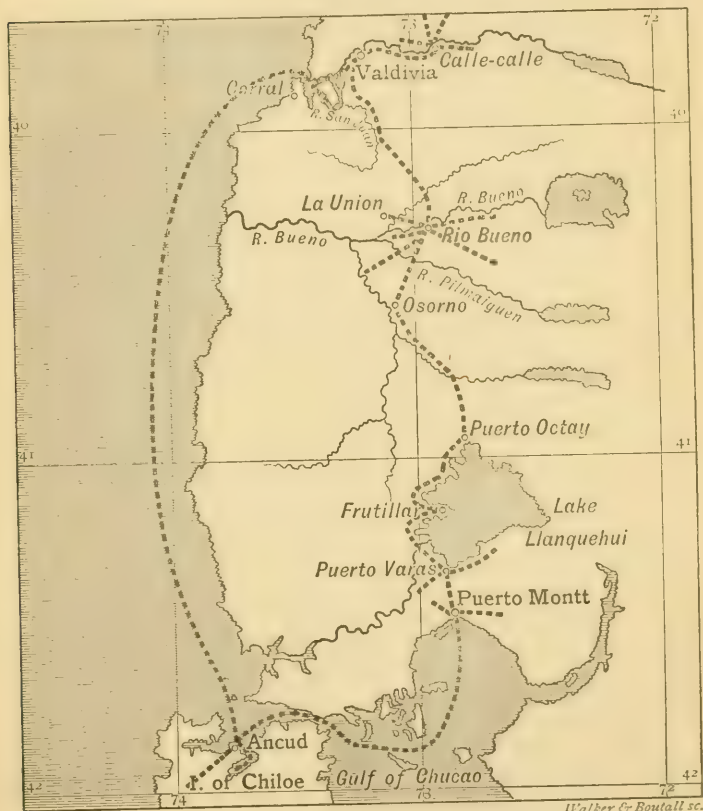


LOCALITIES OF MR. LANE IN ARAUCO.

found the hills covered with scrub and small birds plentiful, though in limited variety. On July 13th he went on to Maquegua, south of Coronel, and about ten miles inland, which he found to be just at the commencement of the great forest-district of Southern Chili. The country was very hilly and fairly wooded, and traversed by numerous ravines

(*quebradas*) choked with dense bush. From Maquegua Mr. Lane made expeditions all round, to Colico and Curanilahui inland, and to Arauco on the neighbouring coast. After a stay of about two months in this district and at Laraqueti on the coast, the winter being nearly over, he prepared to go on to Valdivia.

Fig. 3.



ROUTE OF MR. LANE IN VALDIVIA AND CHILOE.

On September 22nd, Mr. Lane, having left Coronel by steamer, arrived at Corral, a small port at the mouth of the Calle-calle river, whence it takes about two hours in a

steam-launch up to the town of Valdivia. The scenery here was remarkably picturesque, the country being hilly and thickly covered with evergreen woods, which extend to the water's edge. After a short stay at Valdivia, Mr. Lane proceeded to Calle-calle, about 30 miles up the river, where he remained a week, and, meeting with but little success in collecting, returned to Corral. The most noticeable bird about Calle-calle was the large Woodpecker, *Ipocrantor magellanicus*; but at Corral the beautiful bay and inland creeks yielded a plentiful supply of water-fowl. Sea-birds were also obtained outside the harbour, where he saw a good many Penguins (*Spheniscus humboldti*).

On November 11th Mr. Lane left Corral by steamer for Ancud, the port at the north end of the large island of Chiloe, but not finding many additional sea-birds there, went on by the next steamer to Puerto Montt, on the opposite mainland, where he arrived on November 20th. Hence an excursion was made to the inland lake called Laguna de Llanquihui, about 20 miles from the coast. Here he stayed first at Puerto Varas, a small place on the lake, and was much pleased with the German settlers, who were very hospitable and obliging. Not having great success at Puerto Varas, Mr. Lane went, on December 2nd, to another village on the Laguna called Frutillar, and subsequently to Puerto Octay, a small place on the north side of the lake. After a day's stay here he rode through the town of Osorno to Rio Bueno. The country between Puerto Octay and Osorno was mostly forest, and there appeared to be few birds except Parrots, which were plentiful. From Osorno to Rio Bueno the land was mostly cultivated with wheat. About two hours from Rio Bueno, where that stream is joined by the Pilmaiguen, was one of the best bird-resorts he had come upon. There were islands along both rivers frequented by Ducks, Herons, Storks, and other water-birds. Living was cheap and the people were hospitable, and Mr. Lane had planned to stay on here for a considerable period. Unfortunately, however, the revolution of 1891 broke out, the whole country became upset, and all civilians were forbidden

to carry firearms. Under these circumstances Mr. Lane thought it prudent to leave the country and return to Europe.

V. *Mr. Lane's Field-Notes.*

I now give a selection from Mr. Lane's field-notes made during these expeditions. The nomenclature and arrangement of James's 'New List of Chilian Birds' are followed, and references to the volumes of the Catalogue of Birds in the British Museum (B. M. C.) are added. The localities under each name in brackets are taken from Mr. Lane's specimens now in the British Museum.

1. *TACHYGINETA MEYENI* (Bp.).

*Tachycineta meyeri*, Sharpe, B. M. C. x. p. 116; James, N. L. p. 2; Sharpe & Wyatt, Mon. Swallows, i. p. 153, pl. 23.

(Corral and Maquegua.)

Common throughout Chili, and known as the "Golondrina." I believe it is found in Valdivia and Chiloe only in the warm season. I observed it in June at Coronel, but on going to Maquegua I found none at that date, though it became plentiful there at the end of August.

† 2. *ATTICORA CYANOLEUCA* (Vieill.).

*Atticora cyanoleuca*, Sharpe, B. M. C. x. p. 186; James, N. L. p. 2; Sharpe & Wyatt, Mon. Swall. ii. p. 505, pl. 99.

(Sacaya.)

Birds of this species appeared to be generally distributed on the east side of Tarapacá. They were common at Huasco, and I fancy those I saw at Pica were the same. They breed at Sacaya about November or December, making their nests in holes or crevices in cliffs.

3. *CONIROSTRUM CINEREUM* (d'Orb. et Lafr.).

*Conirostrum cinereum*, Selater, B. M. C. xi. p. 15; id. P. Z. S. 1891, p. 133.

(Pica.)

I collected the specimens sent of this species at Pica, in



Tarapacá, during the latter part of May, 1890, which was well into winter-time.

I was unable to find out any local name for this species, as the natives of Pica are far too indolent to take any interest in ornithology, but I heard of its occurrence in similar oases further north. I observed these birds in flocks feeding on the tops of trees, just like Titmice, especially on a sort of willow-tree. The sexes appear to resemble each other in markings and size. They are probably residents at Pica.

They appear to be purely insectivorous, feeding on minute insects like Paridæ. Their call-note is similar to that of most species of the latter; they were rather silent, however, when I saw them, merely calling to each other when scattered.

4. *XENOSPINGUS CONCOLOR* (d'Orb. et Lafr.).

*Xenospingus concolor*, Sharpe, B. M. C. xii. p. 799; Sci. P. Z. S. 1891, p. 133.

(Pica.)

Whilst collecting at Pica (province of Tarapacá) in May, 1890, it being then winter-time in that locality, I noticed these birds in the gardens, singly or in pairs. I was told by the natives they were "Canaritos"; but "Canarito" (which is a pet name for Canary in Spanish) is often applied indiscriminately to small birds.

This is a shy, retiring bird, flitting through the thick bushes, and occasionally uttering a peculiar and rather subdued chirruping.

5. *PHRYGILUS GAYI* (Eyd. et Gerv.).

*Phrygilus gayi*, Sharpe, B. M. C. xii. p. 781.

I did not observe these Finches until I went to the province of Arauco, north of which they do not occur on the lowlands; at least so I was told. They are more plentiful in the south, especially in Chiloe, and on the adjacent mainland. Their local name is "Chanchito" ("little pig").

They resemble *P. atriceps* very closely, and might be

mistaken for them by a casual observer. *P. atriceps* is somewhat larger, and its deep-black head distinguishes it, this part being in *P. gayi* of a dark slate-colour. Even their notes appear identical, though I heard the male of *P. gayi* utter a simple melody on a few occasions during summer, which performance I did not notice in the other species. In Southern Chili the present species feeds a good deal on the ground underneath bushes.

The favourite haunts of these birds are the sides of ravines or abrupt hollows, covered with thick bush of a seed-bearing nature, and small cliffs covered with creepers. They do not occur on open stretches, but are often numerous in partially-cleared localities, where coppice has taken the place of the large timber previously cut down or burnt. I never could find their nests. I frequently saw them in confinement, in aviaries. When crossing the Andes, from Santiago to Mendoza, I found this bird numerous on the Argentine side, where it feeds on the ground on the barren mountain-slopes.

#### 6. *PHRYGILUS ATRICEPS* (d'Orb. et Lafr.).

*Phrygilus atriceps*, Sharpe, B. M. C. xii. p. 786; Selater, P. Z. S. 1891, p. 133.

(Sacaya and Huasco.)

Abundant about Sacaya, and fairly so about Huasco and other localities in Tarapacá. The adult male, when in full colour, is a very beautiful bird, and is perhaps slightly larger than the female. The iris is hazel. These birds frequent the low bushes which border the valley, and feed principally on the ground, where they pick up seeds of the bushes and mountain grasses. Their note of alarm is a *click*, which can be imitated by pressing the tongue against the palate and then withdrawing it; sometimes it has a double sound. They have other call-notes, but, so far as I could ascertain, nothing resembling a song.

I found them between 10,000 and 12,000 feet, and in Tarapacá only.

7. *PHRYGILUS UNICOLOR* (d'Orb. et Lafr.).

*Phrygilus unicolor*, Sharpe, B. M. C. xix. p. 792.

I only observed this species at Huasco about the rocky slopes bordering the laguna on the west. They are known as the *pajaro plomo* (leaden or lead-coloured bird), on account of their colour. I was informed by a native that they are resident at this locality. The sexes appear alike. Their only note seemed to be a subdued chirrup; they searched for food on the ground, and hopped familiarly about the ruins of an Indian homestead, where we camped.

8. *PHRYGILUS ALAUDINUS* (Kittl.).

*Phrygilus alaudinus*, Sharpe, B. M. C. xii. p. 793.

(Vina del Mar and Coronel.)

Owing to my somewhat limited sojourns in Central Chili, I only came on this species occasionally, and have no information of any account about it. It appears to occur near the sea-shore, on rather bare hill-slopes, and such localities all through the central provinces. I got one specimen near Coronel (province of Arauco) in the winter-time (about June), 1890, and subsequently found none, and I did not hear of them occurring further south.

9. *PHRYGILUS CORACINUS*, Scl.

*Phrygilus coracinus*, Sclater, P. Z. S. 1891, p. 133, pl. xiii.; James, New List, p. 2.

(Near Sacaya.)

The specimens sent home were obtained at an estancia about eight leagues to the east of the valley of Sacaya on the 20th March, 1890. I had no opportunity of observing the habits of these birds, but concluded that they were migrants or occasional visitors, as the natives did not seem to know them.

10. *DIUCA GRISEA* (Less.).

*Diuca diuca*, Sharpe, B. M. C. xii. p. 800.

(Hacienda Mansel and Coronel.)

This bird competes with the Pilcated Song-Sparrow for being the most abundant species in Chili, and in the central

and southern provinces fairly beats it. It is a resident, I think, everywhere.

I do not exactly know its northern limit, but, so far as I could ascertain, it stretches up to the commencement of the desert portion of Chili, occurring up to the base of the Andes as far as cultivation extends. In the south it is equally numerous, occurring all through Chiloe, and probably in the southern archipelagos and on the mainland to the Straits, at least as far as cultivation is carried on, for it does not appear to find sustenance in the natural forest. It is not so plentiful on the coast as further inland.

It is called by the Chilians "Diuca."

The sexes are of about the same size, and alike, though as a rule the female is not quite so handsome as the male. They prefer civilization, and are invariably found about homesteads or tillage. In the cold season they may often be seen feeding on the ground in large flocks; they separate on being disturbed. They feed on various seeds, especially grass seeds, also berries, &c. About Santiago they nest from the end of September to Christmas, varying further south according to climate. At Valdivia the season is five or six weeks later than as stated above. As soon as the time of year comes on they display a good deal of energy, and, like most Finches, are very active in their nesting operations, and vociferous as well. The nest is sometimes completed in three days or less, according to circumstances, and if the birds are not unsettled or disturbed.

The nest is placed from 3 to 8 feet from the ground, and as a rule well concealed in a thick bush or branch.

The eggs are laid to the number of three, being usually completed within two days from the laying of the first egg.

I found some nests with four eggs, but this is unusual, and sometimes I found birds sitting on two or even one egg.

Incubation lasts two and a half weeks or more, both birds assisting.

The young are fed in the usual Fringilline manner, on the pulp from the crops of the parent birds. They attain their full size in about a month.

The young are browner than the old birds on leaving the nest, which colour they retain for some time, especially the females.

The usual chirrup of the cock is like that of our House-Sparrow, but he outdoes the latter in attaining to a song in the summer. The song consists of a succession of loud clear notes, rather uneven in harmony and abrupt; but though it cannot be classed with the performances of other Finches, still it is constantly uttered in a cheerfully boisterous manner, which does a great deal towards enlivening some Chilean localities, where the singing birds are few. This bird is easily kept in cages, and ought to breed regularly in an aviary.

#### 11. ZONOTRICHIA PILEATA (Bodd.).

*Zonotrichia pileata*, Sharpe, B. M. C. xii. p. 610; Selater, P. Z. S. 1891, p. 133.

(Tarapacá and Arauco.)

This familiar species appears to have an extremely wide range. In the province of Tarapacá I found it plentiful at Pica and Canchones, and heard that it occurred at similar oases a little further north. In the central provinces it is abundant everywhere, especially on the coast, and I found it equally numerous all through the south as far as I went.

When going from Valparaiso to Buenos Ayres, I met with it on both sides of the Andes to a considerable height (on the Chilean side past Mendoza, and on the other at Puente de la Vaca), at least where stations occur, as it prefers the vicinity of human dwellings. I subsequently found it plentiful about Buenos Ayres. Its general name all through Chili is "Chincol," often expressed in the diminutive, "Chincolita," and sometimes in southern provinces pronounced "Chingol." The sexes are similar.

On the central coast this is the commonest species observed, but inland the Diuca Finch is still more numerous. The Chincol is a very homely bird, and will be seen hopping about the door of the finest dwelling-house as well as the

humble abode of the peon. They do not penetrate the forests in the south, but occupy all gardens and cultivated fields. They feed as a rule on the ground, like Sparrows, and consume similar food.

Their nesting is somewhat curious, as they frequently build on the ground, though as a rule they nest in bushes at a height of from 2 to 6 feet.

In Central Chili they nest from the beginning of October to the end of November, and about Valdivia during November and December. At Rio Bucno they continued nesting till February. I fancy they generally bring out two clutches. The average clutch consists of three eggs. I found a nest in Central Chili close to the margin of a lake; it was placed at the butt of a thistle and concealed by one of the leaves. I thought at first it was that of some other species until I identified the bird. I subsequently found a similar nest on the ground, and was told that they are frequently met with.

Incubation, I think, lasts about sixteen days after the last egg is laid. The birds commence to sing very early in the season, and cease when the breeding period draws to a close.

I think their song one of the most pleasing of all that I heard in Chili, and it is most perfectly appreciated when heard, as I heard it on approaching Pica, for the first time, after riding for a long day through the barren desert, destitute of all traces of life.

Whilst first in Chili (at Hospital) I often heard a Chincol suddenly burst out in a cheerful song on a dark night, when all else was still. The usual call-note is a very characteristic chirp. I noticed during the breeding-season the birds have another chirp or cheeping sound, which is also used as a note of alarm.

## 12. CHRYSOMITRIS BARBATA (Mol.).

*Chrysomitris barbata*, Sharpe, B. M. C. xii. p. 216.

(Corral, Coronel, Calle-calle, and Maquegua.)

This species is one of the most popular and familiar small birds throughout Chili. It is very numerous in the southern provinces, and from its beauty, docility, and singing capa-

bilities is kept by many people as a cage-bird. It is known everywhere as the "Jilguero," pronounced "Silguero" in the southern provinces.

These birds closely resemble the common Siskin in general appearance and colouring, as also in habits. I did not observe them in the central provinces, but was told they occur as winter visitants. I found them very numerous in Arauco, and also about Valdivia; but south of the latter district I did not observe so many, though a certain number occurred as far south as I went, and on Chiloe. They bred at Rio Bueno about November, somewhat earlier than other small species there.

I was not fortunate in getting any eggs of this bird, but found a new nest, which was placed in a thick shrub on the margin of the forest about 3 feet above the ground.

A boy brought me a young one in full feather; it was somewhat like a female, but less distinctly marked.

These birds are easily captured at certain seasons by means of trap-cages. I had specimens alive at various times, but they usually escaped or got injured, so I had none to bring home.

In winter-time in Arauco I frequently saw them feeding on the topmost twigs of low forest trees, just like a flock of Siskins do here on the alder. They commence to sing at Maquegua (Arauco) about the beginning of August, and sing a good deal through the summer. Their song is very pleasing and much esteemed. Their call-note is the double whistle of the Siskin. They prefer wooded districts, are not found in very open localities, and appear capable of finding subsistence in the forest for a large portion of the year, if not altogether.

### 13. CHRYSOMITRIS ATRATA (d'Orb. et Lafr.).

*Chrysomitris atrata*, Sharpe, B. M. C. xii. p. 212; Sclater, P. Z. S. 1891, p. 134.

(Sacaya.)

I first saw these birds at Huasco, in Tarapacá, in January, 1890, and subsequently at Sacaya.

They did not appear to be stationary for any length of

time, but frequented stretches of the low bush, in large scattered flocks, and I saw none after February, and concluded they had migrated.

I have found a note, made at the time, of having got some which were apparently young birds in immature plumage, from which it would appear that they breed in those Andean localities, and migrate before the cold season. The only note I observed them utter was an insignificant twitter when flitting from bush to bush. I did not see any at altitudes above 10,500 feet.

#### 14. PSEUDOCHLORIS UROPYGIALIS (Selater).

*Pseudochloris uropygialis*, Sharpe, B. M. C. xii. p. 776.

Abundant about Sacaya and Cancosa, but I did not observe any about Huasco. They are known as "Cherigiite de las Cordilleras." Beyond their call-note, which is a simple and somewhat subdued chirp, they do not appear to possess any vocal ability. They appear to be resident at the localities above mentioned, feeding on seeds.

The sexes appear similar in size and colour; I have not got their dimensions. They generally resorted to the valley and surrounding slopes from 8000 feet upward, occasionally being met with up to 13,000 feet, and perhaps higher.

They are very sprightly in their habits, and sometimes are seen in companies of from twenty to thirty, where there is some special feeding attraction. They are in many points similar to *Sycalis arvensis*.

#### 15. PSEUDOCHLORIS AUREIVENTRIS (Phil. et Landb.).

*Pseudochloris aureiventris*, Sharpe, B. M. C. xii. p. 777; Selater, P. Z. S. 1891, p. 133.

This species is probably of general occurrence throughout the Andean valleys of Tarapacá, where animal life finds means of sustenance. The native Bolivians called it "Canario," but this is a Spanish name, meaning a Canary, and is applied to a great many small species. I observed it at most of the places I camped at, but it did not seem plentiful, and I never saw more than one at a time. I was told that it bred about Sacaya and Cancosa.



I observed it about at altitudes of from 8000 to 10,000 feet. It frequents places where mules, &c., are kept, near camps or houses, also grassy slopes near rivulets.

The only note I heard it utter was an insignificant chirrup.

16. *SYCALIS ARVENSIS* (Kittl.).

*Sycalis arvensis*, Sharpe, B. M. C. xii. p. 382.

(Hacienda Mansel, Rio Bueno, Puerto Montt, Laguna Llanquehui.)

A common species in the southern provinces, wherever wheat-growing is carried on, but not seen in the forests. It is also numerous in Central Chili. The general local name is "Cherigüe," which word is something similar in utterance to one of their call-notes. It appears to be a resident in all localities where met with. In winter-time it is usually seen in large flocks, on open ground, in search of seeds.

They are at all times most exuberant birds and very sprightly, but on the approach of the breeding-season become even more animated and noisy, and the males commence their song, which is most remarkable, not so much for its note as for the manner in which it is executed. The chief characteristic of this song is that it is invariably performed on the wing. It is commenced during ordinary flight in a twittering strain until the bird is at a height of about eight or twelve feet, when it suddenly relapses into a long-drawn whirring note; the bird at the same time keeping the wings expanded and almost motionless, except for a slight vibration, and allowing itself to sink gradually to the ground. This peculiar habit led me at first to suppose that the species was some sort of Skylark, until I found the feat was performed by a bird already known to me. This habit is kept up all through the summer; in addition, the male is most amusingly energetic during this period, especially in his attendance on the female, driving her to the nest and appearing to be in a perpetual state of motion and excitement.

They did not appear to nest at Rio Bueno until after Christmas, though pairing-operations had been commenced some time before.

The nest is placed in the grass or in a low bush near the ground. The average number of eggs is from four to five, but I noticed on various occasions that there was a difference of size in the eggs, as if two females had laid in the same nest. One especially I noted as containing four eggs, two of which were almost half as large again as the other two, though they were all of a more or less uniform colour and similarly spotted. As the birds are of a most sociable and gregarious disposition, it may be that the females occasionally share nests.

The young are of a plain brown colour on leaving the nest. I chanced one day to capture one while walking along a hedgerow; it was much smaller than an adult, but apparently quite independent, though when I placed it in a cage I had to train it to eat. At first I held it in one hand and gave it some soaked bread on the top of the first finger of my other hand. It soon learnt to eat the bread, which it did in a nibbling fashion, much as a mouse or small rodent would. It did not seem at all afraid of being handled, and soon learnt to feed by itself in a cage, but unfortunately it was attacked with the pip, to which it soon succumbed. I fancy they could be readily kept in confinement; but curiously I never saw it in the possession of any local bird-fanciers, though I noticed specimens of most of the other Finches in aviaries in Central Chili.

17. *AGELÆUS THILIUS* (Mol.).

*Agelæus thilius*, Sclater, B. M. C. xi. p. 343.

(Hacienda Mansel and Arauco.)

This species is found from Central Chili to Valdivia, but may be regarded as properly belonging to the central provinces, where it is everywhere known as the "Trile" or "Chili." I have been informed on good authority that Chili was named after the cry of these birds, which were noticed by the Spanish pioneers to be specially abundant about swamps and sedges, then more numerous than now. I believe this theory is also supported by Dr. Philippi.

This bird occurs invariably about reed-beds and swamps, streams, lakes, and rivers, and is found in all such localities

in the provinces of Valparaiso and Santiago. I do not know how far northward it extends—perhaps to the commencement of the desert region; but as one travels from the above provinces southward it is found in quantities, as morasses and swamps are plentiful; and this continues to Arauco, where it is numerous and resident on the coast. I did not find these birds so plentiful about Valdivia, and further south they are scarce and perhaps only occur as summer migrants. I believe they occur in Chiloe and on the adjacent mainland. I found them near the Rio Bueno.

The female is somewhat smaller than the male, and different in colour; the latter being a deep black, all except the first set of scapulars on each shoulder; so that when seated the bird appears all black, but the yellow shows strikingly when it flies. They appeared to me to be altogether insectivorous, probably feeding chiefly on some kind of grubs or aquatic insects; they feed on wet mudbanks and amongst sedge. One day when at Hospital (province of O'Higgins) I watched a female "Trile" running along the muddy border of a small river. It turned over all the small stones, leaves, bits of stick, &c., with its bill, just like a Turnstone. As I had at the time a good pair of field-glasses, I was able to watch it closely.

These birds have a peculiar smell about their plumage, common to other Starlings, but possessed by them in a more marked degree than *Trupialis militaris* and *Curæus aterrimus*.

I did not observe their breeding-habits. Except for their call-note and a few others, they do not seem to be possessed of any vocal abilities. I heard that they could be kept in confinement.

#### 18. TRUPIALIS MILITARIS (Linn.).

*Trupialis militaris*, Sclater, B. M. C. xi. p. 356.

(Hacienda Mansel, Calle-calle, and Colico.)

This bird, known in Chili as the "Loica" or "Loyca," is plentiful in all the central provinces and extends southward to Chiloe and the adjacent mainland, wherever suitable localities exist.

The female may perhaps be a trifle smaller than the male. Both sexes vary in colouring, the male attaining more brilliant plumage after the moult. The iris is black. They frequent the hills in Central Chili, and in other localities prefer large open expanses of grass-land or agricultural districts. They appear to be more terrestrial than arboreal in their habits, and I should say they fed altogether on the ground. They are to a great extent insectivorous, though they also eat various grains and, I believe, fruit.

I never found the nest of this bird, but was told it is built as a rule in one of the scattered bushes which occur frequently on hills or plains in Chili.

A full-fledged young one was brought me at Rio Bueno, which I kept alive for two days, when it was stolen by rats. It had a faint reddish tinge on the breast, and was much duller in its markings than adults. It was brought to me about the middle of February. In Central Chili this species breeds much earlier. In winter-time the birds go in flocks.

I saw one in a cage at Valparaiso which seemed thriving, and was told they could be easily kept in aviaries.

They have a good series of this species in the Santiago Museum, amongst which is a beautiful variety of the male having those parts usually bright red or scarlet of a rich yellow colour.

#### 19. *CURÆUS ATERRIMUS* (Kittl.).

*Curæus aterrimus*, Selater, B. M. C. xi. p. 354.

(Hacienda Mansel and Calle-calle).

This species is abundant throughout central and southern Chili, and is generally known as the "Tordo" (Thrush).

The sexes are similar in colour, and differ little in size.

These birds prefer agricultural districts, and in winter-time are usually seen in flocks. They feed chiefly, if not altogether, on the ground, eating insects, grain, and fruit, and are very rapacious. I had one alive for some time in an outhouse in Rio Bueno; it was much like a specimen of the *Corvidæ*, being rather familiar and cunning; it did not appear afraid of other birds, and could defend itself ably

with its powerful bill and claws. The rats did not take it, although I believe only for its strength and pluck they would have done so, as it had been winged slightly and could fly little in consequence; however, one day it got out and made good its escape into some dense covert in spite of determined pursuit.

They nest in thick shrubs or bushes about six to eight feet from the ground. I found only one clutch of eggs, which were broken. The average number is four or five; they are of a light bluish ground, with a few black patches or specks.

Of the three Chilian Icteridæ, this is the most vivacious and familiar, as it is more frequent around dwellings. It is extremely voluble, having some notes not unlike those of our Starling, and a somewhat similar method of singing. In this respect, however, these birds almost excel the latter, and their performance is pleasing and frequently heard. In Arauco they commenced singing early in August. They have some pretty notes, and individuals develop capital variations in their song, as they have considerable ability in mimicking the notes of other birds. I once heard one imitate exactly the call-notes of *Colaptes pitius*. They are very sociable among themselves, and keep up a good deal of chattering and chuckling when together.

In winter I have watched a flock on ploughed land grubbing busily in the clay for worms; &c.

They are frequently kept in cages in the central provinces.

20. *AGRIORNIS LIVIDA* (Kittl.).

*Aagriornis livida*, Sclater, B. M. C. xiv. p. 4.

(Arauco.)

I only met with one specimen of this bird when on some open ground near the sea, below the town of Arauco. The ground was covered with sand-dunes and scanty bushes, amongst which the bird was flying. I saw at once it was of a species I had not before encountered, so procured it, and searched for more, but did not find any. It appears to resemble the next species closely, and is probably similar in its habits.

21. *AGRIORNIS MARITIMA* (d'Orb. et Lafr.).

*Agriornis maritima*, Selater, B. M. C. xiv. p. 6; id. P. Z. S. 1891, p. 134.

(Sacaya.)

This bird occurred about Sacaya and in other localities in the Cordilleras of Tarapacá. I usually observed them (singly) on rocky slopes bordering the valleys, where they perch on the tops of bushes or boulders. The Indian name is "Huayaje" (pronounced Wy-agh-a). The legs and feet are strongly formed and of a black colour, also the bill, the latter being of very stout make, and giving the bird an appearance well deserving of the appellation of the genus. I was informed that they are of a rapacious nature, and devour quantities of the small sand-lizards which frequent these localities. I seldom saw the birds, but was told they were by no means uncommon. They nested at Sacaya about November or December.

The nest (specimen sent) is composed of llama wool and rags picked up about Indian homesteads, and is clumsily constructed on ledges of rock in caves or on the sides of ravines.

I believe only two eggs are laid, but I was too late in the Cordilleras to obtain specimens. An Indian got me a nest in the end of January 1890, containing two naked young ones, which I kept some days alive by feeding them on pieces of the flesh of specimens which I skinned. They fed with avidity and seemed by no means particular, and certainly were extremely hardy, as I did not bestow much attention on them, but thought that they would be more interesting in spirit than when they had developed more growth, as they were at quite an early stage (perhaps five or six days old).

As a proof of their hardiness I may state that, owing to the frost at night, they were in a half-frozen state each morning, but came to life on being laid out in the rays of the rising sun, by which means I kept them in apparently good condition for three or four days, when I had to leave my camp, so consigned them to the spirit-jar.

I should conclude from these facts that this species would

be kept easily in confinement, with suitable food. I do not remember hearing the note of this bird. I observed them up to 11,000 feet.

22. *TENIOPTERA PYROPE* (Kittl.).

*Tænioptera pyrope*, Selater, B. M. C. xiv. p. 15.

(Corral, Calle-calle, Valdivia, Maquegua.)

I did not observe these birds until I went to Arauco, where I saw them about the hills round Coronel, Lota, and Laraquete, and in the interior, thence southward everywhere I went, and on Chiloe. They appeared very plentiful in the province of Valdivia. I should consider them a common resident in all these localities. I have always seen them singly, except when paired. It is generally known as the "Diucon," probably on account of its resemblance to the Diuca.

It is very similar in appearance to the birds I got in the Northern Cordilleras, called by the Indians there "Sahuisahui"; having the same delicate texture of plumage, and finely-shaped black bill, legs, and feet. It is invariably observed on the topmost twig of a shrub or low tree, and when disturbed will fly a short distance to a similar position. The flight is undulating and buoyant. The call-note, which is constantly uttered, is very similar to that of the Bullfinch, and likewise low and subdued; it is uttered more frequently on the approach of an intruder or when its nest is threatened.

It is strictly arboreal in its habits, but occurs both in the forest parts and round cultivated lands and orchards. Its flight is generally accompanied by a peculiar clicking noise, which is, I think, made by a snapping of the beak. One of its most characteristic habits is the capture of insects on the wing; it flies at them from its perch, to which it usually returns. I never saw one appear to miss the insect it flew at, though this flight is often very remarkable, as it will generally poise itself a moment or two in mid-air and go through some curious gyrations in regaining its perch. In such instances the snapping noise is always heard several times, perhaps, but the bird also makes it in its ordinary flight, when no insects appear adjacent.

I have on two or three occasions remarked that these birds "tower" or soar upwards from a perch to a height of 20 or 30 feet, and then drop down again to the spot they quitted with no apparent object. But I think this occurred at the breeding-season, and may be accounted for as a freak of the male bird when looking for a mate, as is often observed in Greenfinches.

The nest is placed in a fork, in the stem of a shrub from 3 to 5 feet above the ground. The eggs are three in number. I fancy both birds assist in the incubation. At Rio Bueno, January seemed to be their proper nesting-season, or perhaps the end of December, as I found a young bird half fledged about the second week of January. This was the only young bird I found, and I left it to get a little more forward; but on returning a few days later it was not in the nest, and I could not find it, though I knew by the old birds it was near. I believe, from the conduct of the latter, they suspected my intention and had concealed it, as it would not otherwise have left the nest so soon.

These birds appear to feed entirely on insects caught on the wing, though perhaps they get them on branches of trees as well, but I never saw them search for food except in the air.

I seldom heard the song of this bird, but it is occasionally indulged in by the male at the commencement of the breeding-season. I cannot, however, say much as regards its vocal powers, as, though not unpleasant, the strain is so subdued as to be heard only when close at hand, and the execution is bad, being very abrupt, as if the performer would not trust his voice.

It appears to be a delicate bird and is easily killed; I do not think it could be kept in confinement.

### 23. *LICHENOPS PERSPICILLATA* (Gm.).

*Lichenops perspicillata*, Sclater, B. M. C. xiv. p. 48.

(Hacienda Mansel, Rio Bueno, and Rio Pilmaiguen.)

This species is not uncommon in Central Chili about reeds, lagunas, and rivers. I did not observe it during the winter



season in the province of Arauco; but I presume it comes there in summer, as I subsequently found it during the warm season about Valdivia in suitable localities.

I did not hear of it in Chiloe or Puerto Montt, but observed it about the Rio Pilmaiguen during my stay at Rio Bueno.

The oven-shaped nest, built of pieces of rush and mud, which I sent from Hospital, I believe belongs to this bird—at least so a native told me, but I had not been able to identify it to my own satisfaction.

It was placed in reeds about a foot and a half above the water. I had not much difficulty in wading to it, as it was only waist-deep. I do not remember whether I sent any eggs; but I believe the clutch consists of three or four, of a pretty blue colour, much like those of the common Hedge-Warbler.

These birds appear to feed entirely on insects, which they capture frequently on the wing, making a clicking noise. I have also often seen them alight on the ground in adjacent fields or grass-banks, to search for food. I never heard more than a slight call-note, and conclude that their vocal abilities are very insignificant.

24. *ANÆRETES PARULUS* (Kittl.).

*Anæretes parulus*, Sclater, B. M. C. xiv. p. 106.

(Maquegua.)

I saw this little bird about Hospital, but found it much more numerous in the south, where it takes the place of the Tits of Europe. It is generally called the "Torito," from the crest on its head, which the Chilians think makes it resemble a bull. It is, I believe, a resident species; I saw it as far south as I went. It is also plentiful about Coronel and in the surrounding districts. It is of general occurrence, but most abundant where covert is thick, and occurs largely in the forests, where it searches for minute insects just in the same manner as the Tits do in Europe.

It is generally arboreal, though it often traverses the shrubs very low down, and will descend to the ground to examine roots, fallen timber, &c.

Except when breeding, these birds keep in troops, and in this respect as well as their call-note they are extremely like Tits, for which they might be mistaken by a person only knowing the former and not seeing them close.

So far as I could see, they are strictly insectivorous.

They utter a rather loud chattering note and make some other sounds, but none that could properly be called a song. When feeding in company they utter a call-note like that of the Coal-Tit.

25. *CYANOTIS AZARÆ* (Licht.).

*Cyanotis azaræ*, Selater, B. M. C. xiv. p. 110.

(Hospital.)

This species is fairly numerous throughout Central Chili, though confined to suitable localities. In the south it is scarcer, occurring more as a summer migrant, though it is resident near Coronel. At Valdivia it comes every summer to the reed-beds by the river, but further south it is scarce. It occurs sparingly in Chiloe, according to the German observers, but on the mainland I did not see any near the Laguna de Llanquehui. I once saw one in some reeds by the Rio Pilmaiguen in February, but could not get a shot at it; it made no noise, and appeared to be a solitary wanderer. It is known as the "Siete-colores" (seven colours) in all the districts which it frequents regularly.

I only observed the birds in reeds, and I think they roost in them at night. The nest is placed on a single reed about 18 inches or 2 feet above the water. I believe three or four eggs are laid. In places where these birds are plentiful they make a good deal of chattering, the usual note being a metallic clicking or very sharp chirping; I should be inclined to compare it to tapping the point of a knife on a plate.

26. *ELAINEA ALBICEPS* (d'Orb. et Lafr.).

*Elainea albiceps*, Selater, B. M. C. xiv. p. 141; id. P. Z. S. 1891, p. 134.

(Pica, Corral, Hacienda Mansel, and Rio Bueno.)

This little bird appears to have a wide range, but to be a migratory species. It is, I think, entirely arboreal, but is

found in every part of Chili that I visited, frequenting forests, gardens, and bushes or shrubs of any sort. It is generally known as the "Vio," on account of its whistle or call-note, which is very characteristic. About Hospital it was called the "Chiflador," which might either mean *whistler* or *cutter*, the former from its note, or the latter from its destructive habits in gardens, where it picks off the buds of fruit-trees, though whether it does so in search of insects or not I cannot say. I observed a number in the gardens at Pica about the commencement of March, but later on I could not find one there. I did not see any whilst in Arauco during the cold season, but later on they appeared at Corral about the beginning of November (1890).

At first, after making their appearance at Corral, the birds kept very quiet and well out of sight in the bushes, but soon they appeared to have got over the effects of their journey and made themselves heard all through the forest. They appear to range a good way south, and are found on Chiloe during the summer season, migrating north in winter. On first seeing this bird I thought it was a Finch, from the stoutness of the bill and its brisk manners. It usually has the head-feathers erect, which makes the white fleck on the head very conspicuous. It captures insects on the wing in the same manner as the "Diucon," and makes the same snapping noise (at least when flying at insects). It does not, however, appear, like the former species, to rely on this method of feeding, but is continually searching about leafy branches for what it may find about the leaves. It also eats berries, especially those of the *marqui*, in the south when in season. It is not so much seen as heard, as it always flits through the leaves and flies out at insects, quickly retreating to its hiding-place. I saw one catch a good-sized butterfly. They sometimes go through more ludicrous antics even than the Diucon, swooping and twisting backwards, and occasionally fluttering through intricate branches as if shot and wounded.

The nest is usually placed in a low thick bush or shrub, 2 to 4 feet from the ground. Only two eggs are laid.

I never heard these birds make any noise when I got close on the nest. I found one nest in a *quila* bush. I did not find any nests with young, but observed young birds, which could only have flown a day or so previously, feeding on *marqui*, and, judging from some fresh droppings, on it exclusively.

The song is a somewhat variable ditty, and is more amusing than harmonious, being a series of whistles and squeaking sounds uttered promiscuously, though with energy.

This bird is held in very bad repute by gardeners on account of its depredations already alluded to.

### 27. PHYTOTOMA RARA, Mol.

*Phytotoma rara*, Selater, B. M. C. xiv. p. 406.

(Hacienda Mansel, Corral, and Calle-calle.)

This is rather a handsome species when in full plumage, but one of the most destructive birds in the central and, I believe, in all the southern provinces as well. It is known as the "Rara," but I could not get any clue to the origin of this name.

It appeared to me to be more plentiful about Valdivia than in Central Chili, but I fancy it is chiefly a summer migrant at the former place.

The iris is of Chinese orange colour.

The Raras are persistent visitors to gardens, where they bite off buds, demolish fruit, and do an enormous amount of damage if not driven off in time. They do not appear to frequent the old forest about Valdivia, but take up their abode in coppices near cultivated ground, orchards, and such-like localities. They seem to eat all sorts of green food as well as fruits and berries, but I could not discover whether they were also insectivorous.

A captured adult refused all kinds of seeds which were offered to it, but ate grass and the leaves of various weeds with avidity, also blossoms and flowers. I gave it the yellow blossoms of the gorse (which has been imported), and it appeared to relish them. Later on I observed the birds were also as partial to the *marqui*-berries as the other small species

in the south. They chew such materials thoroughly, with the teeth in the upper mandible, before swallowing them. They began to nest at Rio Bueno about the beginning of January, previous to which I had observed pairs keeping together for some time. The nest is placed in a thick bush or shrub from 3 to 5 feet above the ground. The complement of eggs is four, which seem all to hatch out invariably. The shell of the egg is rather brittle.

I have repeatedly noticed droppings of the adult birds of this species on one side of the nest during incubation, which I do not think occurs with any other species the nests of which I have examined. The young birds appear to take an unusual time to grow, and do not thrive in captivity. I took a nest with three young ones well feathered, intending to rear them, but after being kept for a month they dwindled away and died. My time was limited, and I was unable to give them much variety in the way of food, or I might perhaps have succeeded. They fed readily, after a day or so, from a spoon or quill, but never made any progress or learned to feed themselves. They made a hoarse chirping when expecting food. The note of the adult male is a rasping or grating noise, more remarkable than harmonious, and uttered after the manner of a song by the bird whilst seated on the top of a bush, in spring or summer.

The female is usually silent; the birds go in pairs or threes or fours, keeping together, but when moving they seldom use a call-note.

28. *GEOSITTA FROBENI* (Phil. et Landb.).

*Geositta frobeni*, Sclater, B. M. C. xv. p. 6; id. P. Z. S. 1891, p. 134.

(Sacaya.)

Birds of this species are of general occurrence in the Cordilleras of Tarapacá, and I observed them up to 12,000 feet.

They are apparently resident, and breed in the mountain districts, as a rule frequenting dry open ground near the valleys.

They seem to be strictly insectivorous and terrestrial, not

perching at all. When disturbed they are more inclined to run than to fly, which they do with great rapidity and in a peculiar manner, keeping the tail spread and the head and body thrown back. They have a shrill, remarkable cry, which may be frequently heard, but otherwise have little variation.

I never saw them about the marshes or very close to water, and they seemed to frequent bare sandy spots rather than places where a little vegetation occurred.

29. *UPUCERTHIA JELSKII* (Cab.).

*Upucerthia jelskii*, Selater, B. M. C. xv. p. 18; id. P. Z. S. 1891, p. 134.

(Sacaya.)

This species was plentiful about Sacaya in Tarapacá, and occurred also at Huasco. I observed it at from 9000 to 11,000 feet. It appeared to be a resident and to breed there.

These birds are invariably found on the slopes bordering a valley or marsh, where there is a scattered growth of scrub affording scanty covert. They are altogether terrestrial and fly very little. When disturbed in the open they make for the nearest covert, if hard pressed flying a short distance with quick strokes and apparent difficulty. The tail is carried erect when running.

I noticed one, which happened to be grubbing for worms on a grassy spot, drive away other small birds which came near it, making an angry chattering noise.

The note of this bird is a shrill cackling sound, with more or less variation. It feeds on worms and grubs, and is probably altogether insectivorous. It nests in a hole which it excavates at the base of some bush on the hillside. I found a fresh hole at Sacaya, but after digging it out for six feet found that no nest had been made.

30. *CINCLODES PATAGONICUS* (Gm.).

*Cinclodes patagonicus*, Selater, B. M. C. xv. p. 23.

(Corral, Hacienda Mansel, and Rio Bueno.)

This species is plentiful all through Southern Chili. In

the south, at least about Valdivia, it is called "Chureta." They are lively birds, continually running about the banks at the water's edge and paddling now and then in the shallows. They also abound on the rocks of the sea-shore.

[Mr. Lane also obtained three examples of *C. nigrofumosus* at Hacienda Mansel.—P. L. S.]

### 31. CINCLODES BIFASCIATUS, Sclater.

*Cinclodes bifasciatus*, Sclater, B. M. C. xv. p. 25; id. P. Z. S. 1871, p. 134.

(Sacaya.)

This species was plentiful throughout the valley of Sacaya, especially on rocky slopes bordering water. I was told they breed among the rocks, but could not find any nests during my stay there. The sexes resemble each other.

The note of these birds is peculiar, being a loud screech, followed by a repeated chatter on a lower key. They appear to feed on insects on the banks and margins of streams.

[Mr. Lane also obtained specimens of *C. fuscus* at Sacaya. See P. Z. S. 1891, p. 134.—P. L. S.]

### 32. OXYURUS SPINICAUDA (Gm.).

*Oxyurus spinicauda*, Sclater, B. M. C. xv. p. 30.

(Maquegua.)

This is one of the species characteristic of the great southern forest district. It has various local names, such as "Colilargo" and "Tijerito." I do not know how far north these birds extend. They are plentiful in Arauco and all through the more southerly provinces, especially in the forest-covered districts.

The iris is black. The sexes appeared to be similar. They are, I think, resident wherever they occur.

They feed like Tits, usually in flocks, and have a piping call-note, also some chattering and twittering utterances, which are frequently heard. I never found the nest, but observed young ones near Rio Bueno about February.

Sometimes large numbers are seen in the forest feeding low down and frequently on the ground, searching amongst dead leaves or decayed wood for insects, which they appear to live on. They are, however, as a rule arboreal.

## 33. SYLVIORTHORHYNCHUS DESMURSI, Gay.

*Sylviorthorhynchus desmursi*, Selater, B. M. C. xv. p. 31.

These peculiar birds, as a rule, occur only in the forest districts of the south, but I was informed that they migrate a short distance to the north in winter-time.

They frequent the densest undergrowth, especially the *quila*, and are rarely seen, as they are very retiring by nature. They have a somewhat shrill piping note, heard more frequently at sunset, and kept up continuously in the same key. It was the only note I heard them utter. They are termed "Colilargo" by the natives.

I observed some young ones, having apparently only just left the nest, about the middle of February near Rio Bueno. There were at least four in company.

[There is no specimen of this bird obtained by Mr. Lane in the British Museum, but he can hardly have mistaken the species.—P. L. S.]

## 34. LEPTASTHENURA ÆGITHALOIDES (Kittl.).

*Leptasthenura ægithaloides*, Selater, B. M. C. xv. p. 35; id. P. Z. S. 1891, p. 135.

(Sacaya and Hacienda Mansel.)

This species was common in Tarapacá, about Sacaya, and occurs generally in similar localities, where it is apparently a resident.

The specimens I got in the province of Arauco appeared to be of the same size and were similar in their habits to those obtained in Tarapacá. Both closely resembled the European Tits in all their habits, and also in their note, which was not varied, being usually merely a *twit* when feeding in company, but occasionally one uttered a querulous chattering, somewhat like that of the Great Tit, but shriller.

They fed in a Tit-like fashion on the twigs and branches of shrubs, and appeared to be strictly arboreal. I observed those of Tarapacá up to 12,000 feet.

## 35. PYGARRHICUS ALBOGULARIS (King).

*Pygarrhicus albugularis*, Selater, B. M. C. xv. p. 126.

(Maquegua.)

This species is very characteristic of the forests of Southern



Chili. I did not hear of any reliable local name for it, but the German colonists call it, very correctly, the "Baumläufer" (=Tree-creeper). The sexes appear to resemble each other.

I do not know how far north these birds extend, but I think there would not be many north of Arauco, where I first observed them in the forest districts.

I found them as far south as I went, apparently resident and in fair numbers. They do not appear to go far from the forest, and are usually found in it. Their habits, as regards feeding and movements, are the same as those of Woodpeckers and Tree-creeper, to which they are similar in appearance. They usually creep about the tops of high forest trees, and now and then come lower down, and at times I have seen one descend to examine logs on the ground.

They peck with considerable force, like a Woodpecker, and seem more closely related to the Tree-creeper than to the other Dendrocolaptidae which I observed, and from which they differ considerably both in appearance and habits.

The note is a loud and somewhat sharp chirruping, and is frequently uttered; it generally betrays the presence of the bird.

### 36. *PTEROPTOCHUS RUBECULA*, Kittl.

*Pteroptochus rubecula*, Sclater, B. M. C. xv. p. 345.

(Puerto Varas, Llanquehui, Rio Bueno, and Calle-calle.)

This species reminds one of the Common Redbreast (*Erithacus rubecula*), its colouring being somewhat similar, and its large eyes making the resemblance still closer.

It is another of the forest species of Chili, and extends from the province of Arauco southward, occurring also on Chiloé. In Arauco I do not think it is so plentiful as about Valdivia and the Laguna de Llanquehui.

These birds inhabit thick undergrowth in the forest, and are generally found in the vicinity of a stream. They come out now and then into view, when unconscious of observation,

but on perceiving anybody near, or any sudden movement, they are so hasty in their retreat that they seem to vanish into nothing. Their movements can only be compared to the flight of an arrow or such-like missile—that is, when they make a dart across an open space or retreat from observation. Otherwise they hop or run along in an easy-going way, and will come quite close under cover of bushes. The length of a full-grown male is almost 7 inches. Bill from point to gape .75 inch; tail 3 inches; wing from shoulder to tip 2.85 inches, primaries 10. The wings expanded measure slightly over 9 inches; they are very rounded in shape and not adapted for flight. In fact, so far as I remember, I never saw one of these birds fly properly; they trust entirely to their legs when trying to escape.

Their note is very loud compared to the size of the bird; it is uttered in almost the same tone as the gobbling of a Turkey.

The male of this species emits a note something like the crow of a cock; this it utters at intervals while threading its way through the labyrinths of the forest undergrowth, and it is answered by similar notes from a distance all round. I have also noticed that when they are moving in a ravine they invariably go along the bottom, down stream. They do not leave the ground as a rule, though they may occasionally perch on a stick for a second; but I never observed them hopping through the bushes as the other forest-species do. The female has a note like the crow of the male, but much more contracted. They also utter a most dismal cry, which is a sort of call-note when a pair are together. I do not think they practise the chromatic scale, so peculiar to the genus *Hylactes*.

I spent a good deal of time in Arauco trying to get these birds, but almost gave it up in despair, until I went further south, where I found them to be much more plentiful and quite numerous in the forest; so much so in some places that by waiting in a likely spot, and keeping very quiet, I generally got a sight of one, as they will then come boldly into view, as if prompted by curiosity; but if the gun be brought

quickly to the shoulder, or any sudden movement, no matter how slight, be made, they vanish as if the ground had swallowed them, and it is useless to try to get another sight of them.

These are the celebrated "Chucoa" of the Indians, who believe so much in them that if on a journey they hear them *crow* on the left-hand side they will turn back, rather than meet the misfortune that awaits them, whilst if the sound be on the right they proceed, confident of success.

### 37. *HYLACTES TARNII*, King.

*Hylactes tarnii*, Sclater, B. M. C. xv. p. 349.

(Corral, Rio Bueno, and Puerto Montt.)

I came on this species first in the province of Arauco, where it is plentiful, especially in the interior, and from thence southward as far as I went, also on Chiloe. It is well known by the inhabitants as the "Chucoa," though they do not seem to distinguish between it and *Pteroptochus rubecula*; on inquiry I was simply told that this species was the "Chucoa grande" or "mas gordo." It is, however, in repute with the Indians as a "bird of omen," like *P. rubecula*. It is evidently a resident species. I believe it extends westward to the Cordilleras, as far as the high forests reach. I should call it a species peculiar to the great forest which originally covered Southern Chili.

The first I obtained at Maquegua (No. 357) was the largest I got; it was 11 inches long from tip of bill to tip of tail; the bill, from tip to gape or forehead, about 1 inch. Tail 4 inches; the lateral rectrices appeared to number six each side; middle two. Primaries ten. Wings short and very rounded, when closed measured about 4.5 inches (shoulder to tip), and when expanded about 14 inches (tip to tip). Tibia about 2.5 inches, tarsus about 2; middle toe about 1 inch, or with claw 1.5; hind toe .9, or with claw about 1.5 inch. Bill and feet black. Iris perhaps vandyke-brown, but a dark shade. The flesh is very delicate and palatable.

These birds are most plentiful in pieces of old forest of

some extent where *quila* and other undergrowths abound, but also occur through the more cultivated parts wherever there is sufficient covert, such as *quebradas*, banks by rivers, and such places, where the *quila* and other growths defy the agriculturist. Like all the other species of this family, they are seldom seen by the ordinary observer, and exceedingly difficult to shoot, unless plentiful and one is thoroughly acquainted with them. On first encountering them at Maquegua I spent hours waiting in their haunts with scarcely any success, and used to sit in the *quila* all day, with my gun ready, without even getting a view, although I frequently heard them in close proximity. Their most characteristic song is a series of descending notes on a chromatic scale, which appears to be the same as that of the "Turco" in the central provinces. I thought at first it was the same bird, as it is equally remarkable for the force and distinctness with which the song is uttered. It also gives a weird cackle, somewhat like the sounds produced by *Pteroptochus rubecula*, but harsher and more rapidly uttered. The first time I heard this note I was crossing a steep *quebrada* in the dusk, and whilst climbing by means of the shrubs the call resounded abruptly about a few yards off, causing me the most complete amazement, as I could not understand any living creature, unless of considerable size, making such a noise; and although I examined the place intently, and listened carefully, I could get no trace of the individual, and I felt convinced, if of the size I imagined, it could not thus get away without my knowing; so I was much perplexed until I found out the owner of this mysterious voice.

It has another note (one of alarm), which more resembles the cluck of a hen, pronounced abruptly and intermittently. When the habits of the bird are thoroughly known to a collector he may act on this as a means of getting a shot. I found, where plentiful in the forests near Rio Bueno, that the birds often seated themselves on the top of the *quila* and commenced this note. There were usually a pair together, as it was the breeding-season, and they probably had a nest near. I used to creep gradually on to them,

with as little noise as possible (though in such dense growth this usually amounts to a good deal, in spite of all precautions), and generally got a shot, but invariably had to go very close; otherwise I could not see them at all, and indeed I seldom saw one openly; but one gets used to catching a glimpse of them through the bush, and they are easily killed. They appear to feed exclusively on insects, which they search for on the ground, amongst the decayed vegetable matter, scratching a good deal like gallinaceous birds. I was told that they nest in a hole burrowed in the ground, and lay two eggs.

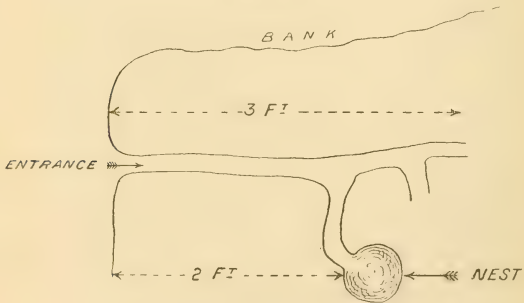
38. *HYLACTES MEGAPODIUS* (Kittl.).

*Hylactes megapodius*, Selater, B. M. C. xv. p. 349.

(Hacienda Mansel.)

This species appears to be plentiful in Central Chili, amongst the hills. It was fairly numerous on the hills near Hospital, but I do not know exactly how far south it extends. I was told it occurs near Coronel, but did not see it there,

Fig. 4.



Nesting-hole of *Hylactes megapodius*.

and fancy that my informant had mistaken *H. tarnii* for it, as its notes, descending in a chromatic scale, are similar. The notes, when heard for the first time, cannot fail to attract the attention of even the most indifferent observer, making him wonder what sort of creature it can be. Many English-

men I met on the coast seemed to have some idea that a certain "singing fox" was found in the woods; but though this conjecture was somewhat imaginative, it was indeed more natural to attribute the sounds to a quadruped of that size than to a small bird. I scarcely got any of these birds, as I had not time, while in their locality, to become sufficiently acquainted with their habits.

Fig. 4 gives a diagram of a nest near Mansel, which I was lucky in finding, as the bird ran out as I was passing the entrance, which was in a low bank on the hillside, close to a bush. I had to return another day with a spade to dig it out. I dug in on the main passage for about 3 feet, but this seemed to terminate after I had discovered the furthest siding, which led to nothing, and subsequently, after almost giving up the search, I found another branch, and got the nest and egg, which I sent home. The local authority among the farm hands (who knew very little) told me the clutch was only two; I think he may have been right on this occasion, as I heard others say the same.

39. *TRIPTORHINUS PARADOXUS* (Kittl.). (Fig. 5, p. 46.)

*Triptorhinus paradoxus*, Selater, B. M. C. xv. p. 351.

(Coronel and Calle-calle.)

This bird is plentiful from Arauco southward and also in the island of Chiloe. In the winter season it appeared to go about in companies, and I have seen at least six together. The sexes are, apparently, of the same colour, the male being perhaps better marked, and the female duller and perhaps a trifle smaller. The measurements of the male are:—Length, bill to tip of tail, 5·75 inches. Beak (tip to gape)  $\frac{1}{6}$  of an inch. Tail 2·25 inches; the middle rectrices number two, but all I examined had only four lateral each side. The wing is 2·25 inches from shoulder to tip; the two measure not more than 8 inches. Tibia 1·25 inch, tarsus 1, middle and hind toes ·75 and ·5 respectively (to ends of claws).

These birds are generally in the bottom of thick covert or on the ground, seldom rising more than 3 feet above the ground. In the more cultivated districts they also occur in thick

coppice some way from forest. They creep along twigs and branches in some extraordinary manner, which is neither hopping nor running, so far as I could see, but more like the

Fig. 5.



*Triptorhinus paradoxus*,  $\frac{2}{3}$  nat. size.

(From Mr. Lane's sketch, drawn by J. Smit.)

motion of Tree-creepers than anything. On the ground they hop and take little runs, like the larger species of the group. In winter-time they grub a good deal amongst the dead leaves, making a considerable rustling, but at the same time are, from their colour, almost imperceptible.

#### 40. EUSTEPHANUS GALERITUS (Mol.).

*Eustephanus galeritus*, Salvin, B. M. C. xvi. p. 156.

(Corral.)

I did not notice this Humming-bird in Central Chili in December, 1889, but subsequently, on coming to Arauco in

the middle of 1890, I found it at first in limited numbers, and afterwards increasing as the winter passed away. Later on I observed plenty as far south as I went. Numbers may be seen in the southern forests round fuchsia-bushes when in flower. Occasionally individuals come into the rooms of houses, especially where flowering creepers grow round the window.

41. *STENOPSIS LONGIROSTRIS* (Bp.).

*Stenopsis longirostris*, Hartert, B. M. C. xvii. p. 585.

(San Pablo.)

The specimen sent (No. 146) was brought me by some small boys at the Oficina of San Pablo (Tarapacá) in February 1890. I could get little information about these birds: one man told me he had seen them; but I subsequently got no further satisfaction, although I made various endeavours and watched frequently at night.

42. *COLAPTES RUPICOLA* (d'Orb. et Lafr.).

*Colaptes rupicola*, Hargitt, B. M. C. xviii. p. 26; Selater, P. Z. S. 1891, p. 135.

(Yrba, near Vilugo.)

I know very little of this species, as I only met with it casually in Tarapacá. The Indians called it "Talhuaiti," and said it comes from Bolivia and that some (perhaps the males) have red heads. This name is evidently an imitation of the cry. Where found in the mountainous districts these birds appear to feed principally on the ground, probably on beetles and ants, of which there are a good many. They occur up to 10,000 feet, but, so far as I could ascertain, only on the eastern side of the Andes.

The iris is of an olive-yellow.

43. *COLAPTES PITIUS* (Mol.).

*Colaptes pitius*, Hargitt, B. M. C. xviii. p. 28.

(Corral, Arauco, and Calle-calle.)

This is a common species all through the south of Chili. I observed it in the provinces of Arauco and Valdivia, and also in Chiloe, at Puerto Montt. It is known generally as the "Pitigüe," a name taken from the note of the bird.



The sexes so closely resemble each other that it would be impossible to distinguish them at any distance; they are, so far as I could ascertain, also similar in size. They are invariably met with in pairs, seldom, if ever, singly; sometimes two or three pairs go in company.

The birds are specially plentiful on the margin of the forest or pioneer stations, where the ground has been cleared by burning. In this operation the charred trunks of the large trees are left standing a long time before the land is properly cleared by advancing civilization, and on such trees the "Pitigües" appear to find abundance of sustenance, as their loud though discordant cry is frequently heard. They often call out on being approached, thus betraying their presence. I frequently observed them feeding on the ground, on the grassy plots, especially if there were logs lying there. They proceed by creeping or going at an awkward gait, hopping and walking alternately. I was told at Rio Bueno that they nest in a deep hole in a tree-trunk high up from the ground, about Christmas, laying three or four white eggs, but I never found the nest.

#### 44. *DENDROCOPUS LIGNARIUS* (Mol.).

*Dendrocopus lignarius*, Hartert, B. M. C. xviii. p. 257.

(Hacienda Mansel, Coronel, Rio Bueno, and Laraquete.)

This species seems to be distributed over Central and Southern Chili, but I never found it plentiful in any locality. In the south I did not observe it in the forests, nor did I hear of its occurrence there; but I occasionally found it about clumps of low timber on open flats and in swamps.

The local name is "Carpintero" or "Carpintero chico."

The female is somewhat smaller, and does not attain the bright red on the back of the head which makes the male conspicuous. These birds utter a peculiar call-note, by which they may be recognized, as they are not often seen unless looked for.

#### 45. *IPOCRANTOR MAGELLANICUS* (King).

*Ipcrantor magellanicus*, Hargitt, B. M. C. xviii. p. 481.

This is an inhabitant of the forests of Southern Chili, and

probably peculiar to them, unless found on the eastern side of the Andes. I believe it does not extend north of Arauco, and in this latter province only occurs inland. I could get no positive proof of its existence in Chiloe, but it probably occurs in parts of it which are still under forest. I never met with *Colaptes pitius* and *Dendrocopus lignarius* in the virgin forest, except about clearings, but the present species, on the contrary, does not occur out of it. On this account it is not often obtained, and is consequently considered to be somewhat a *rara avis*, though pretty well known by the name of "el Carpintero" or "Carpintero grande."

The feet and legs are grey, the claws black, and the iris is orange-rufous. The iris of the female is much redder than that of the male, and I was told by a Chilian that this was invariably the rule.

Owing to the destruction of the forest by encroaching settlers, these birds have been driven back towards the interior, and are therefore scarcer on the coast. I was fortunate only on a few occasions in meeting with them whilst in the province of Valdivia. I believe they always go in pairs, like the "Pitigüe," but frequently two or three pairs go together. They have not a loud call, like the Pitigüe, but make curious rasping and chuckling noises, such as might be heard from Magpies. The noise they make hammering away the bark can be heard a good way off. I have seen large holes made by them in the trunk of a growing tree, but could not ascertain the object, as these were not sufficiently large for nesting, and must have occasioned more labour than the bird could be expected to exert in its ordinary feeding operations.

#### 46. CERYLE STELLATA (Meyen).

*Ceryle torquata*, subsp. *a.* *C. stellata*, Sharpe, B. M. C. xvii. p. 123.

This handsome species is, I believe, most abundant in Tierra del Fuego and the most southerly provinces. I fancy it does not occur further north than Arauco; I did not meet with any in this province, but I heard that it occurred, although very scarce. It is more numerous about Valdivia in winter-time.

The stomach of one bird contained only the remains of small freshwater crabs. The note is a loud remarkable chattering. The bird generally sits about 4 feet above the river-surface when fishing.

47. *CYANOLYSEUS BYRONI* (Children).

*Cyanolyseus byroni*, Salvad. B. M. C. xx. p. 207.

(Near San Antonio.)

At the beginning of December, 1889, I observed a large flock of these Parrots in Central Chili, about ten miles inland from San Antonio. The district was a series of hills, mostly cleared and cultivated. The Parrots were feeding on a stretch of fallow, which was overgrown by large thistles, the seeds of which attracted them. I did not meet with them subsequently. They are known in that district by the name of "Loro." I believe that they breed near Cauquenes in holes in the cliffs. They make the most deafening clamour when disturbed.

48. *HENICOGNATHUS LEPTORHYNCHUS* (King).

*Henicognathus leptorhynchus*, Salvad. B. M. C. xx. p. 209.

(Rio Bueno.)

This is a very numerous species in Southern Chili, where the birds are found in large flocks, and are more plentiful in the interior. They are generally called "Choroi" by the natives, sometimes "Catita." I did not get any in Arauco, but was told they occurred, and as their appearance and habits when at large are similar to those of *Microsittace ferruginea*, it is not easy to tell them apart, unless they are seen very close.

They feed on certain trees in the forests, to which they appear to be restricted, as they do not resort much to cultivated fields; but I was told at Rio Bueno that in some years they make incessant raids on gardens and orchards, doing great havoc when the fruit began to ripen.

49. *MICROSITTACE FERRUGINEA* (Müll.).

*Microsittace ferruginea*, Salvad. B. M. C. xx. p. 210.

(Calle-calle and Maquegua.)

I found this Parrot in large flocks in the forest part of

Maquegua, and subsequently about Valdivia. All the Parrots I shot further south were *Henicognathus leptorhynchus*, but the natives said the smaller species occurred as well. They are properly called the "Catita," but the names of "Choroi" and "Loro" are also applied to them. The sexes are similar. The iris of this species is russet-brown. The natives eat these Parrots when they can get them.

Their habits are similar to those of *H. leptorhynchus*, and they utter the same discordant cries, and appear to be confined to the forests, feeding on similar trees.

50. *BOLBORHYNCHUS ORBIGNYI* (Bp.).

*Bolborhynchus orbigny*, Salvad. B. M. C. xx. p. 236.

*Bolborhynchus orbignesi*, Selater, P. Z. S. 1891, p. 135.

(Sacaya.)

These little Parrots occur in flocks at Sacaya, Yabricoya, and other localities in Tarapacá, from November to March.

They are called the "Lorito." They fed on the ground in the valley of Sacaya wherever the coarse Andean grasses grew, the seed of which they appear to relish. I observed them up to 11,000 feet. When on the wing, and in fact almost always, they keep up a good deal of chattering and screaming.

The sexes appear to be similar. The eye is black.

[To be continued.]

IV.—*Ornithological Notes from Marocco.*

By P. W. MUNN.

IN the beginning of May 1895 I left Gibraltar for Ceuta *viá* Algeciras,—as no boat runs direct from Gibraltar to Ceuta,—and any anticipated difficulty with the Custom-house at Algeciras about my gun and ammunition would be evaded by taking them direct from one steamer to the other, without the knowledge of the authorities, and concealing them beneath the cushions in the cabin of the Ceuta boat. The usual uncomfortable passage across the Straits was made in  $2\frac{1}{2}$  hours and on nearing the port the gun-difficulty